Determination of Public Land (Rangeland) Health for 64048 SLEEPY VALLEY

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these Standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the Public Lands within the Sleep Valley Allotment #64048 meet the Upland Sites Standard and (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard. The Public Land riparian area on this allotment is limited; this Standard will be addressed in the future when the assessment is completed on allotment 64050.

/s/ T. R. KREAGER	09/26/2003
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 64048 SLEEPY VALLEY Allotment
[12/13/2002]

The Roswell Field Office conducted rangeland health assessments at one study site within the SLEEPY VALLEY Allotment #64048. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64048-SLEEPY VALLEY-F256 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the Sleepy Valley allotment; 10 of these indicators assessed soil/site stability, 11 assessed hydrologic functions and 13 assessed biotic integrity. These qualitative assessments, along with quantitative information from long-term monitoring studies on one (1) study area, were utilized to assess the rangeland health of the public land within the allotment. These quantitative evaluations were performed by the Roswell Field office staff starting in the early 1980's. These included ground and vegetative cover and composition, production, frequency, and ecological condition as calculated from these collections which have been scheduled approximately every 5 years.

This allotment is located within the Pecos River floodplain. There is agricultural development to the north and south of the assesment location. The assesment area has been operated in conjuction with the farm fields, grazing occurs during periods when livestock are rotated between the fields. The BLM grazing permit does not control overall livestock numbers on this allotment. Considerations for the adjacent farmland, land ownership patterns and acreage amounts have led to the allotment arrangement.

This area also has oil and gas development, there are existing roads, pipelines and site pads scattered throughout.

The Pecos River was treated for salt cedar in this area during September, 2002. This was completed by the State working group and was targeted for private land. The BLM lands along the Pecos River within this allotment were treated at the same time without the conent of the BLM. At the time of the assesment, and subsequent visits during the

growing season, all vegetation within the riparian area was showing the effects of the herbicide. Very little to no green up has occured and the area appears dead. The group that conducted the treatment hopes that native vegetation will respond with adequate precipitation, but currently no re-growth has occurred.

The limited amounts of BLM land within the riparian area on this allotment are placed in with with the BLM riparian land within the adjacent allotment, #64050. Riparian assesments will be conducted in conjunction with assessments on allotment 64050 (in accordance with the Field Office Schedule). These allotments are operated by the same permittee, the Pecos river is the division between the two allotments. Please see the map of the allotment for clarification.

This area has experienced drought conditions or a decrease in water availability which has caused plant cover changes that has had a negative effect on infiltration. The Infiltration is reduced in the area due to adverse changes in plant community composition and/or distribution that may result in increased runoff in the area. Sand and gravel, clay and silt are located on the surface from Quaternary alluvium. Rock outcrops of gypsum and dolomite occur in the area from the Seven Rivers Formation.

Mesquite is quite dense in this area and is causing a loss of herbaceous vegetation. This shift in vegetation has led to decreased water infiltration and soil moisture retention.

It is the professional opinion of the Assessment Team that the public land within this allotment meets the Upland and Biotic standards.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Recommendations: Mesquite control should be considered due to the current densities of the plant. Thorough planning for the project will protect groundwater resources. Herbicides are available that are allowed for use in this area, but other methods may be considered as well. Mechanical removal and prescribed fire may also be tools to restore the site to predominately herbaceous vegetation. There is an adequate seed source for the native herbaceous vegetation to re-establish after mesquite treatment is performed. Planning for the project will require coordination with the grazing permittee to ensure adequate grazing rest to allow for recovery.

Monitoring of the area should continue to determine if management actions are meeting objectives.

Monitoring of the riparian area (in conjunction with allotment 640450) should be a priority to determine the effects of the herbicide application. If natural recovery does not occur, rehabilitation through re-seeding and vegetation plantings should be completed.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64048-SLEEPY VALLEY-F256			
Legal Land Desc	SWNE 30 0070S 0260E Meridian 23	Acreage	556
Ecosite	042CY033NM SALTY BOTTOMLAND S	Photo Taken	N
Watershed	13060003200 FIVE MILE		
Observers	SCHMIDT/FRENCH/MCGEE	Observation Date	12/13/2002
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	GPA	Soil Taxon Name	GLENDALE
Texture Class	NM644 SIL	Soil Phase	GLENDALE-PECOS-HARKEY
Texture Modifier	NM644 SILT LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	12.43	NOAA Growing Season Precipitation	8.4
NOAA Avg Annual Precipitation	13.19	NOAA Avg Growing Season Precipitation	10.83
Disturbances and Animal Use:	This allotment is located within the Pecos River floodplain. There is agricultural development to the north and south of the assesment location. The assesment area has been operated in conjuction with the farm fields, grazing occurs during periods when livestock are rotated between the fields. This area also has oil and gas development, there are existing roads, pipelines and site pads scattered throughout. The Pecos River was treated for salt cedar in this area during September, 2002. This was completed by the State working group and was targeted for private land. The BLM lands along the Pecos River within this allotment were treated at the same time without permission. At the time of the assesment all vegetation within the riparian area was showing the effects of the herbicide. Very little to no green up has occured and the area		

	appears dead. The group that conducted the treatment hopes that native vegetation will respond with adequate precipitation, but currently no re-growth has occurred. The limited amounts of BLM land within the riparian area on this allotment are placed in with with the BLM riparian land within the adjacent allotment, #64050. Riparian assesments are conducted on allotment 64050 and the riparian within allotment 64048 and 64050 are considered as one. These allotments are operated by the same permittee, the Pecos river is the division between the two allotments. Please see the map of the allotment for clarification.

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Some evidence in plant interspaces					
S H	Pedestals and/or Terracettes					X
Comments:						
S H	Bare Ground				X	
Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						

H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Reduced due to mesquite invasion					
S H B	Compaction Layer					X
Comments:	Recent livestock use disturbed surface					
B	Functional/Structural Groups			X		
Comments:	Mesquite invasion					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Many young plants, livestock use from short duration grazing					
B	Annual Production			X		
Comments:	Apparent upward trend					
B	Invasive Plants		X			
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants				X	
Comments:	Mesquite and utilization					
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat			X		
Comments:	Shift in plant community, mesquite invasion					
B	Wildlife Populations				X	
Comments:	Improving grassland					
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for

each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	1	5	5
B	Biotic	0	1	3	5	4

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic	Mesquite densities are high in this area.	1	3	9

Site Notes: The are that the assesment was conducted is within the salty bottomland site approximately 1/2 mile from the Pecos River. This site is fenced seperately from the adjacent farm land. The pasture in which it is located also encompasses the Pecos River. No assessment on Riparian within this pasture was completed. This is due to inaccesability to BLM parcels, and because the riparian area had been sprayed with the herbicide arsenal which effectively killed all vegetation that it contacted. The riparian area within this allotment is assessed along with allotment 64050. Full evaluation of the riparian area will be conducted for the standards and guidelines assessment for allotment 64050.

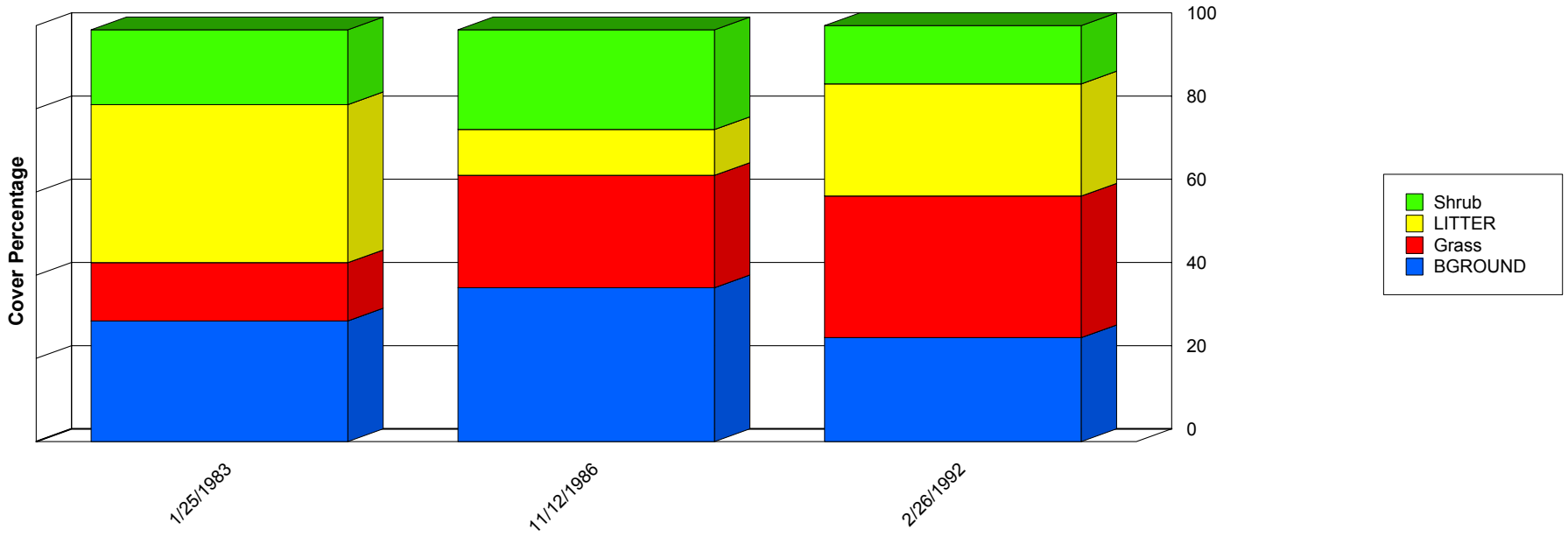
There has been recent oil and gas drilling in the area, roads must be surfaced in this area because of heavy soil testures. The relatively flat terrain aids in keeping run-off from the roads from causing accelerated erosion.

This area is heavily infested with mesquite and is a very good candidate for control. The area has seed source for herbaceous vegetation and catches run-off from nearby uplands. Ground water is relatively shallow in the area, proper herbicide selection and project

design would have to be completed to protect this resource.

The area is grazed during the late summer and fall, this allows for partial growing season deferment.

Ground Cover Trends



	1/25/1983	11/12/1986	2/26/1992
BGROUND	29.00	37.00	25.00
Grass	14.00	27.00	34.00
LITTER	38.00	11.00	27.00
Shrub	18.00	24.00	14.00
Total	99.00	99.00	100.00

Report Parameters

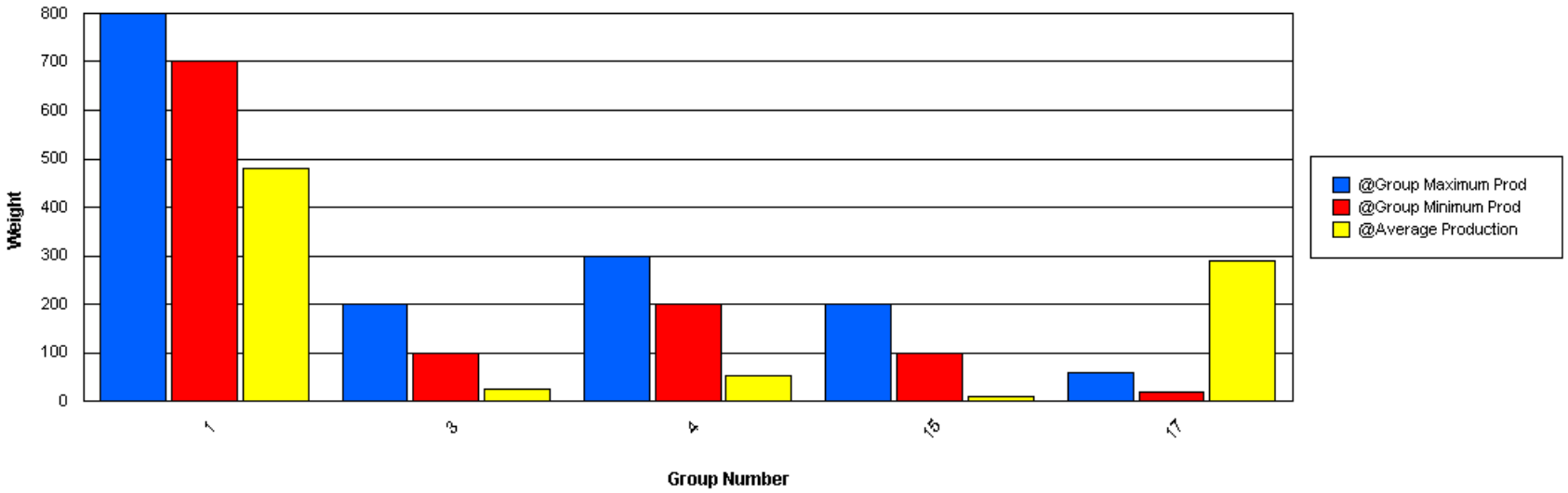
SITE NAME LIKE	64048-SLEEPY VALLEY-F256
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2001

Functional / Structural Groups

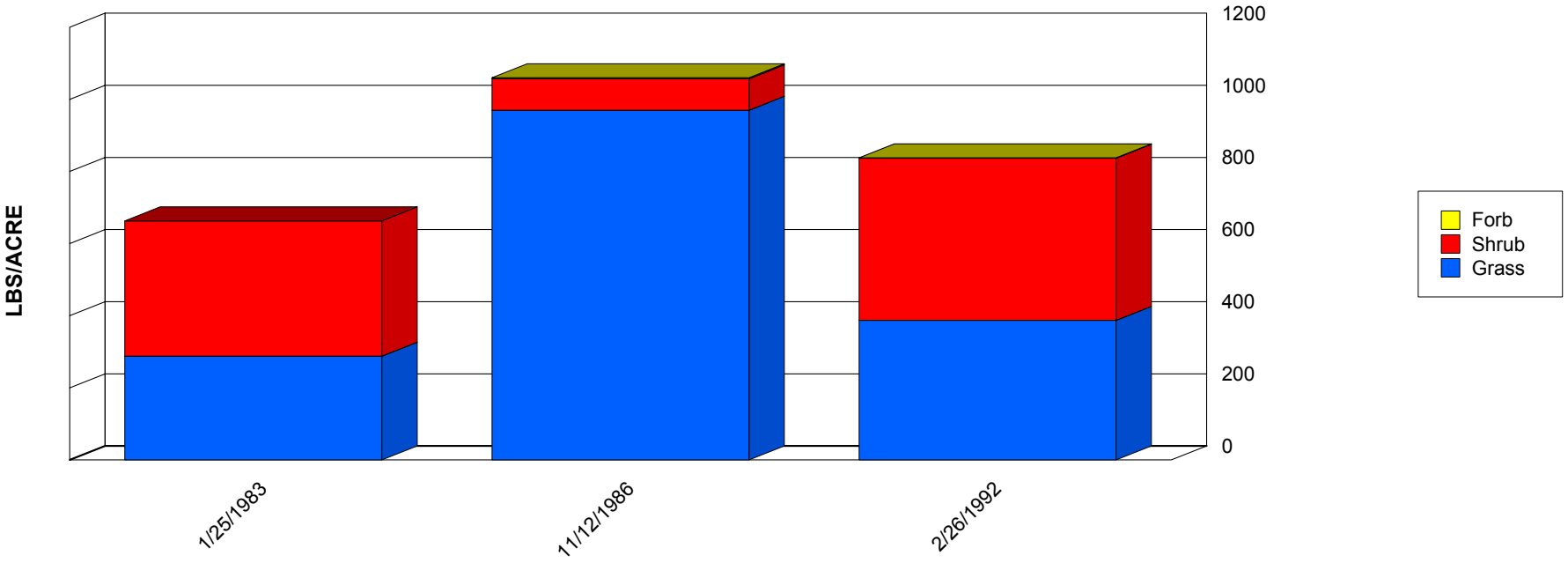
Report Parameters	
SITE NAME LIKE	64048-SLEEPY VALLEY-F256
ON/AFTER	10/01/1982
ON/BEFORE	09/30/1993
MIN LBS TO GRAPH	3
SELECTED ECOSITE	042CY033NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	SPAI	700	800	268.00	872.00	478.67	278.36
3	Grass	HIMU2	100	200	13.00	45.00	26.00	13.74
4	Grass	PAOB	200	300	27.00	78.00	52.50	25.50
5	Grass	SCBR2	300	400	0.00	4.00	2.00	2.00
6	Grass	ARIST	100	120	0.00	2.00	1.00	1.00
6	Grass	MUAR	100	120	0.00	1.00	0.50	0.50
12	Forb	AAFF	20	100	1.00	3.00	2.00	1.00
15	Shrub	ATCA2	100	200	8.00	11.00	9.50	1.50
17	Shrub	PRGL2	20	60	51.00	450.00	288.33	171.45

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

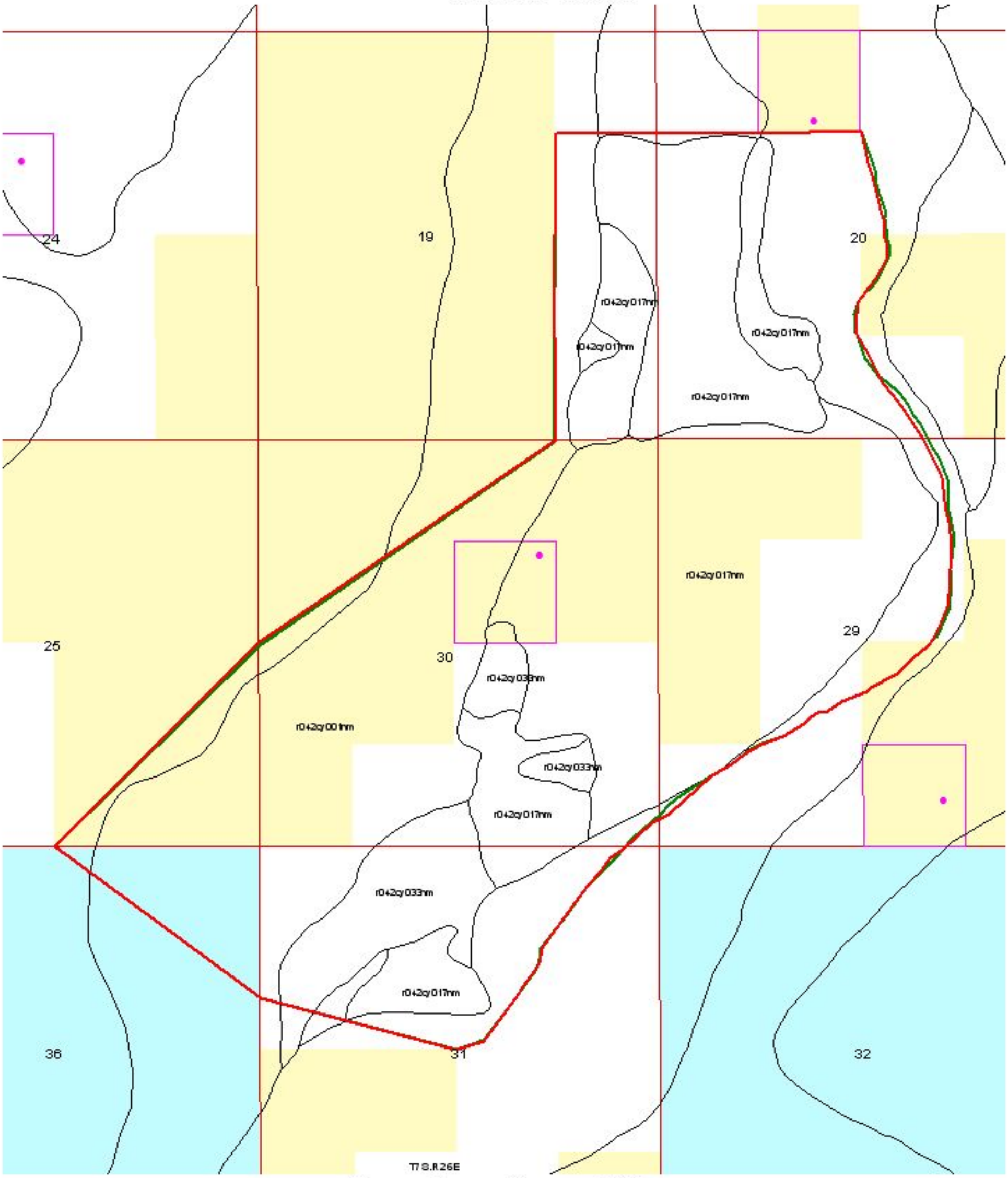


	1/25/1983	11/12/1986	2/26/1992
Forb	**0.00**	**3.00**	**1.00**
Grass	**288.00**	**970.00**	**387.00**
Shrub	**375.00**	**87.00**	**450.00**
Total	**663.00**	**1,060.00**	**838.00**

Report Parameters

SITE NAME LIKE	64048-SLEEPY VALLEY-F256
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2001

Rangeland Health Assessment
Ecological Sites
Allotment - 64048



Study Plots
40 Acres

Study Locations

State

Private

Public

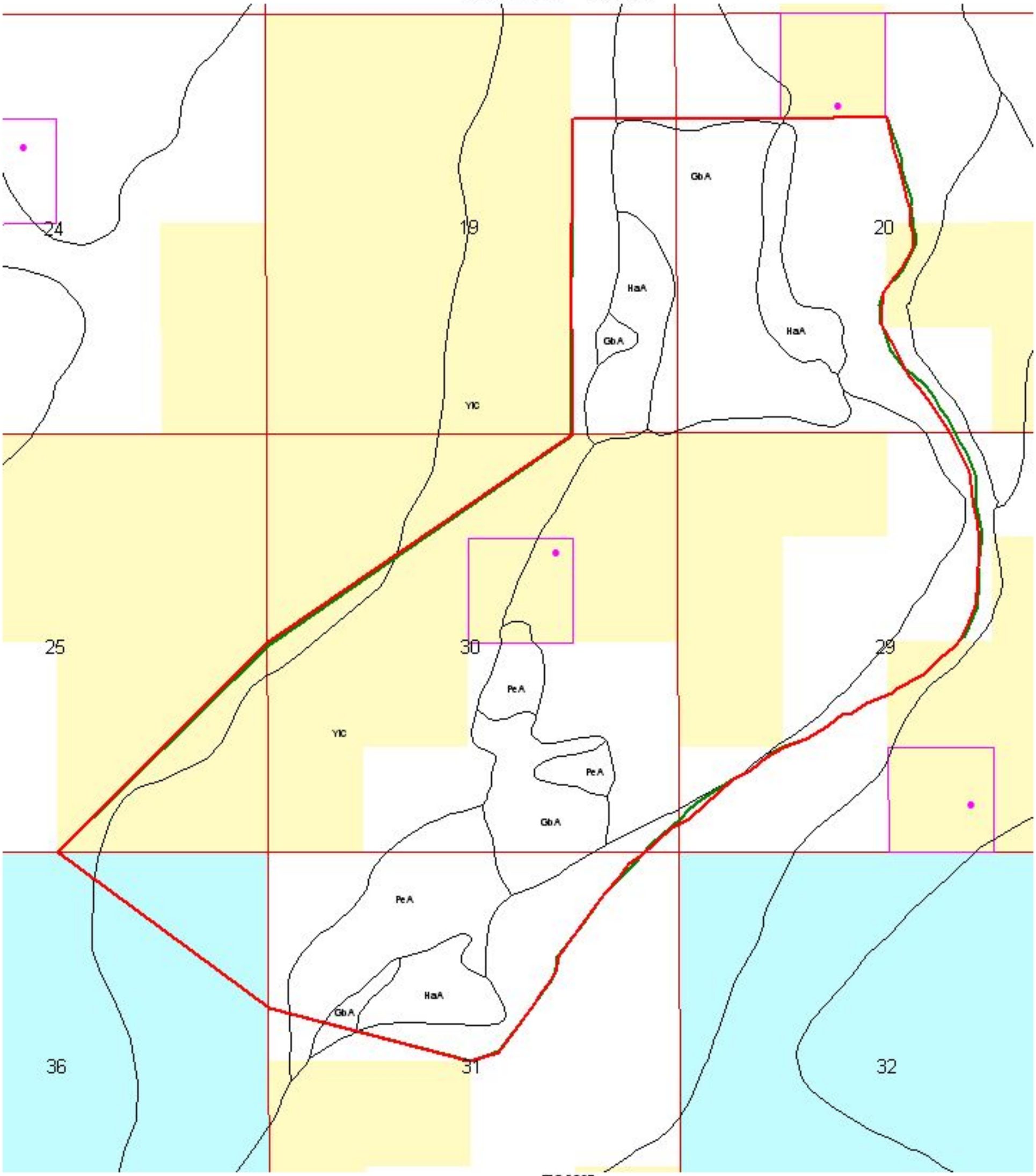
Allotment Boundary

Pasture Boundary

Ecological Site Boundary

Produced by the Roswell Field Office
GIS Specialist on May 14, 2003.

Rangeland Health Assessment
Soil Mapping Units
Allotment - 64048



0.3 0 0.3 0.6 Miles

Study Plots
40 Acres

Study Locations

Allotment Boundary

Pasture Boundary

Soil Mapping Unit Boundary

State Private Public

Produced by the Roswell Field Office
GIS Specialist on May 14, 2003.

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